

REMARKS

These amendments and remarks are responsive to the Final Office Action issued on November 2, 2006. By this Response, claims 53, 57, 65 and 71 are amended. No new matter is added. Claims 53-59, 65 and 71 are active for examination. A request for continued examination and a petition for a one-month extension of time are submitted concurrently herewith.

The Office Action rejected claim 71 under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 53-59, 65 and 71 stood rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter.

The Rejections are respectfully overcome in view of the amendments and/or remarks presented herein.

The Rejection under 35 U.S.C. § 112, Second Paragraph Is Overcome

Claim 71 was rejected under 35 U.S.C. 112, second paragraph, for failing to provide sufficient antecedent basis for the limitation “the query.” By this Response, claim 71 is amended to provide appropriate antecedent basis. It is submitted that the rejection under 35 U.S.C. 112, second paragraph is overcome.

The Rejection of Claims 53-59, 65 and 71 under 35 U.S.C. § 101 Is Overcome

Claims 53-59, 65 and 71 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The rejection is respectfully overcome.

The Office Action expressed concerns over the broadness or definition of the following claim terms: closest, significance, result, datasets, data points, and computer-readable medium. The Examiner suggested applicants further clarifying the meaning of these terms.

Per the Examiner's suggestion, Applicants amend the claim language to address the Examiner's concerns:

(1) closest

The Office Action asserted that the meaning of the claim limitation "selecting datasets whose semantic vectors are closest to the semantic vector for the query" is unclear "because it is not clear what measure of closeness Applicant[s] use."

By this Response, the claimed step is amended as "selecting datasets whose semantic vectors are closest in distance to the semantic vector for the query." The amendment clarifies that the datasets are selected based on the distance between semantic vectors.

Applicants respectfully submit that the numerous embodiments provided in the specification to calculate a distance between semantic vectors are for illustration purposes supporting the claimed concept. Applicants are not required to claim the exact approach described in the embodiments.

(2) significance

The Office Action alleged that the term "significance of each data point" is unclear.

By this Response, the claims are amended to provide further definitions of the signification. Specifically, the amendments specify that "the significance represents a relative strength of each data point relative to each of the predetermined particular categories, or a degree of relevance of each data point relative each of the predetermined particular categories." It is believed that claimed limitation clearly defines the term "significance of each data point." Again, Applicants submit that even though numerous embodiments are described in the specification illustrating how the relative strength or degree of relevance can be determined, these examples are for illustration purposes only, and Applicants are not required to recite the exact approach described in the specification.

(3) result

The Office Action objected to the use of the term “result” in the claims. By this response, the term “result” is deleted from the claims.

(4) datasets and data points

The Office Action alleged that the claim terms “dataset” and “data points” are abstract and fail to provide a tie to the physical world.

By this response, the claims are amended to clarify that the term “data point” corresponds to “at least one of a word, a phrase, a sentence, a color, a typography, a punctuation, a picture, and a character string,” which are physical world examples. And that the term “dataset” is defined to be including one or more data points. As the data points are tied to the physical word, the datasets that include at least one data point also are tied to the physical world. Therefore, the claimed concept, for instance, allows a computer to identify, and output information of, documents or files relevant to a query.

Additionally, the claimed process finds relationships between data representing different items in the physical world, which is analogous to the transformation of data corresponding to discrete dollar amounts into data representing a final share price, a case that the Federal Circuit found to be a sufficiently “useful, concrete and tangible result” in *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998). Furthermore, processing data related to data points, datasets and queries, and generating representative semantic vectors thereof, to differentiate between related and non-related datasets produces a “useful, non-abstract result” **analogous** to the method of adding a data field with information on long distance providers, which the Federal Circuit found to be a “useful, non-abstract result that facilitates *differential* billing of long-distance calls,” which “fall[s] comfortably within the broad

scope of patentable subject matter under §101.” *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999).

(5) computer-readable medium

The Office Action contends that the term “computer-readable medium” would cover a carrier wave that the Patent Office does not recognize as patentable subject matter.

By this Response, the claims are amended to specify that the computer-readable medium is “tangible,” to address the examiner’s concern.

In rejecting the claims, the Office Action contended that “no claim limitations are directed to the method actually used by the invention.” See page 4, last paragraph of the Office action. Applicants respectfully disagree. It is submitted that the claims clearly define the scope of invention and sufficiently reflect the concepts disclosed in the specification.

For instance, claim 53 clearly describes a method for identifying desired datasets, such as documents, according to the contents of a query by utilizing a unique representation called semantic vector for each dataset and the query. Datasets whose semantic vectors are closest in distance to the semantic vector for the query are selected to be corresponding to the desired datasets, and information related to the selected datasets is output. The claim specifically describes unique steps for constructing the semantic vectors. For each data point, a table is constructed for storing information indicative of a relationship between each data point and predetermined categories corresponding to dimensions in the semantic space. The significance of each data point with respect to the predetermined categories is determined. The significance represents a relative strength of each data point relative to each of the predetermined particular categories, or a degree of relevance of each data point relative each of the predetermined particular categories. A semantic vector for each data point is constructed. Based on the

semantic vector for each of the at least one data point, form the semantic vector of the query or each of the datasets. The descriptions of embodiments in the specification are provided to illustrate and support the concepts defined by the claims. Applicants, however, are not required to claim the exact approach described in the embodiments. Rather, Applicants are entitled to claim protections that sufficiently reflect the concepts disclosed in the specification.

Furthermore, the Office Action asserted that “[e]ven if the result were proven to be useful, concrete and tangible, the claims would preempt all possible practical applications of a result from identifying datasets according to a query.” See page 5, lines 11-13 and lines 20-22 of the Office Action. Applicants respectfully submit that this assertion is not supported by any factual evidence and the claims, and apparently have overlooked the specific descriptions in the claims.

The claims presented in this application do not intend to cover all possible practical applications of identifying datasets according to a query. Rather, the claims describe a novel and non-obvious approach in constructing unique representations (the semantic vectors) of data points, datasets and a query; and utilizing the semantic vectors of the datasets, the data points and the query in identifying datasets according to the query. Therefore, the claim scope will not preempt applications of identifying datasets according to a query or associating a data point to a dataset, if semantic vectors are not used in performing these functions.

The 4/14/2004 Information Disclosure Statement Should Be Considered

The Office Action asserted that an information disclosure statement filed on April 14, 2004 fails to provide a legible copy of each cited document, and hence documents listed in the IDS were not considered. It is respectfully submitted that the handling of the IDS is inconsistent to the current Patent Office practice. See 37 CFR 1.98(d) and MPEP 609.I.A.2.

This application is a divisional of U.S. Patent Application No. 09/562,916, now issued as U.S. Patent No. 6,751,621. As indicated in the IDS filed on April 14, 2004, all the documents cited therein were previously submitted in or cited by the parent application. The MPEP specifically mandates that “[t]he examiner will consider information which has been considered by the Office in a parent application when examining... (B) a divisional application.” The listing of information is submitted because Applicants desire the information to be printed on the patent. MPEP 609.I.A.2. It is respectfully requested that consideration of the documents identified in the April 14, 2004 IDS be acknowledged and a properly initialed PTO-1449 be furnished.

CONCLUSION

For the reasons given above, Applicant believes that this application is in condition for allowance, and request that the Examiner give the application favorable reconsideration and permit it to issue as a patent. If the Examiner believes that the application can be put in even better condition for allowance, the Examiner is invited to contact Applicant’s representatives listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to **Deposit Account 500417** and please credit any excess fees to such deposit account.

Respectfully submitted,

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